

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Patent No. : 6,112,514  
Issued : September 5, 2000  
Application No. : 09/159,634  
Filed : September 24, 1998  
For : Fan Noise Reduction From Turbofan Engines Using Adaptive Herschel-Quincke Tubes

**PETITION TO ACCEPT UNAVOIDABLY DELAYED  
PAYMENT OF MAINTENANCE FEE UNDER 37 C.F.R. § 1.378(b)**

Mail Stop Petition  
Commissioner for Patents P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is a Petition under 37 C.F.R. § 1.378(b) to accept delayed payment of the second maintenance fee due on the above-identified U.S. Patent No. 6,112,514 ("the '514 Patent"), whereby the patent shall be considered as not having expired.

The '514 Patent was issued on September 5, 2000. The first maintenance fee was paid on March 5, 2004. The second maintenance fee could have been paid without surcharge as set forth in 37 C.F.R. § 1.362(d)(1) as late as March 5, 2008, and could have been paid with a surcharge as set forth in 37 C.F.R. § 1.362(e)(1) as late as September 5, 2008. Accordingly, the patent expired after midnight on September 5, 2008.

A Petition under 37 C.F.R. § 1.378(b) to accept an unavoidably delayed payment of a maintenance fee must include:

- (A) the required maintenance fee set forth in 37 C.F.R. § 1.20 (f);
- (B) the surcharge set forth in 37 C.F.R. § 1.20(i)(1); and
- (C) a showing that the delay was unavoidable since reasonable care was taken to ensure that the maintenance fee would be paid timely and that the petition was filed promptly after the

patentee was notified of, or otherwise became aware of, the expiration of the patent. The showing must enumerate the steps taken to ensure timely payment of the maintenance fee, the date and the manner in which patentee became aware of the expiration of the patent, and the steps taken to file the petition promptly.

Petition Under 37 C.F.R. § 1.378(b)

(A) Maintenance Fee

The United States Patent and Trademark Office (USPTO) is authorized to charge Deposit Account No. 02-1010, making reference to Docket Number 55820-49375, the second maintenance fee of \$2,850 for a large entity as set forth in 37 C.F.R. § 1.20(g) upon granting of this Petition.

(B) Surcharge

The USPTO is authorized to charge Deposit Account No. 02-1010, making reference to Docket Number 55820-49344, the required post-expiration surcharge of \$700 as set forth in 37 C.F.R. §1.20(i)(1), and any other fees required to grant this Petition.

(C) Showing of Unavoidable Delay

A showing that the delay was unavoidable since reasonable care was taken to ensure that the maintenance fee would be paid timely and that the petition was filed promptly after the patentee was notified of, or otherwise became aware of, the expiration of the patent is set forth below and in the attached declarations and Exhibits in support of this petition.

1. The Legal Standard

The evaluation of a Petition to reinstate a patent under the "unavoidable delay" standard of 35 U.S.C. § 41(c) and 37 C.F.R. § 1.378(b)(3) requires a showing of the steps taken by the responsible *party* to ensure the timely payment of maintenance fee at issue for the patent. See Ray v. Lehman, 55 F.3d 606 (Fed. Cir. 1995), 34 USPQ2d 1786 (Fed. Cir. 1995). In determining "whether a delay in paying a maintenance fee was unavoidable, one looks to whether the party responsible for payment of the maintenance fee exercised the due care of a reasonably prudent person." Id. at 609. The determination of whether the delay is unavoidable is made on a "case-by-case basis, taking all the facts and circumstances into account." Smith v. Mossinghoff, 671 F.2d 533, 538, 213 USPQ 977, 982 (D.C. Cir. 1982).

In California Medical Products Inc. v. Tecnol Medical Products Inc., 921 F. Supp. 1219 (D. Del. 1995), a patent attorney's secretary, whose duties included docketing, mistakenly docketed the reissued patent by its issue date, and not by the issue date of the underlying parent patent, causing an incorrect due date calculation to be entered both on the firm's docket and in the corresponding letter sent by the attorney to the client-patentee. Id. at 1257-1258. The clerk's error was thereafter carried over through the years from a computer docketing system to an index card docket system, all the time relying upon the erroneous data entry relating to the reissued patent. The patentee-client first learned of the error in its attorney's docket system when the USPTO returned the maintenance fee to the attorney, which was tendered based on the erroneous docket information more than two years after the due date for the underlying patent. Id. at 1258. Once the attorney learned of the lapse, reinstatement was promptly sought and granted by the USPTO. Id. The court, on review of the USPTO's determination, concluded that the failure to pay the maintenance fee was unavoidable and that the reissued patent was properly reinstated by the USPTO. Id. at 1259-1260.

The court in California Medical specifically noted that:

[T]he Court finds that this subsequent reliance on the docketing system was reasonable. The purpose of a docketing system is to be a readily accessible source of important information. It is not reasonable to expect a docket clerk, or a lawyer, to question and recalculate the information on a docket sheet every time the docket sheet is used, for that would completely negate its effectiveness. Id. at 1260.

The reasonably prudent person standard has been described as "applicable to ordinary human affairs" and requires a showing by the petitioner of "no more or greater care than is generally used by prudent and careful men" in relation to their most important business. See In re Mattulath, 38 App. D.C. at 514, (D.C. Cir. 1912).

Further, under this standard, Virginia Tech Intellectual Properties, Inc. ("VTIP"), as a reasonably prudent person, was and is able to rely upon the agency of its worthy and reliable employees. The unavoidable standard permits prudent and careful men

**to rely upon the ordinary and trustworthy agencies of mail and telegraph,  
worthy and reliable employees, and such other means and**

**instrumentalities as are usually employed in such important business. If unexpectedly, or through the unforeseen fault or imperfection of these agencies and instrumentalities, there occurs a failure, it may properly be said to be unavoidable, all the other conditions of good faith and promptness in its rectification being present.** (Emphasis added.)

Id. at 514-515 (quoting Ex parte Pratt, 39 Off. Gaz. 1549, 1887 Dec. Comm'r Pat. 31, 32-33 (Comm'r Pat. 1887)). Thus, as here, a single inadvertent, unexpected and unforeseeable error by the trustworthy agency of a worthy and reliable employee is excusable under the rubric of unavoidable delay.

2. Factual Basis for Petition

A showing that the delay was unavoidable since reasonable care was taken to ensure that the maintenance fee would be paid timely and that the petition was filed promptly after the patentee was notified of, or otherwise became aware of, the expiration of the patent is set forth below and in the attached Declarations of Mark Coburn, Debra Lucas and Michael Whitham in support of this Petition. The showing enumerates the steps taken to ensure timely payment of the maintenance fee, the date and the manner in which Patentee became aware of the expiration of the patent, and the steps taken to file this Petition promptly. Furthermore, as required by MPEP 2590, the showing includes statements by Mark Coburn with direct knowledge of the cause of the delay, setting forth the facts as he knows them. Copies of all documentary evidence referred to in Mark Coburn's Declaration and Debra Lucas' Declaration are furnished as Exhibits A-C accompanying this Petition.

Accordingly, this Petition includes a sworn Declaration by Mr. Mark Coburn, President at VTIP, a Declaration by Mrs. Debra Lucas former IP Specialist at VTIP, a Declaration of Michael E. Whitham attorney at Whitham, Curtis, Christofferson and Cook, P.C., Petition Exhibits submitted herewith and a factually supported, chronological explanation for the failure to pay the second maintenance fee on the '514 Patent which meets the Petitioner's burden to show unavoidable delay under statutory standards and USPTO practice.

3. Steps Taken to Ensure Timely Payment of the Maintenance Fees

Maintenance Fee Payment Procedure Prior to 01 May 2008.

Previous to 01 May 2008 Whitham, Curtis, Christofferson & Cook P.C. was responsible for tracking and payment of maintenance fees for VTIP patents. Maintenance fees were timely paid by Whitham, Curtis, Christofferson & Cook P.C. with one exception (see explanation at paragraph 3 of the accompanying Declaration of Michael E. Whitham).

#### Procedure in Place for VTIP to Begin Maintenance Fee Payments.

On about 01 May 2008 Mark Coburn took over responsibility for tracking and payment of maintenance fees for VTIP patents. Since about 01 May 2008 Mark Coburn continues to be responsible for tracking and overseeing payment of maintenance fees for VTIP patents.

VTIP licenses and uses Inteum C/S ® technology transfer software for tracking and managing the intellectual property owned by VTIP. Inteum C/S is recognized in the industry as an excellent management tool for tracking patent due dates including maintenance fee due dates and is in use at over 400 sites worldwide. VTIP licensed and used DEALS data base for years and, after transition of DEALS to Inteum C/S in about late 2002, has continued to use the Inteum C/S data base for tracking of patent matters.

#### Steps Taken Prior to 01 May 2008 to Ensure Transition for VTIP to Begin Timely Payment of US Maintenance Fees

Prior to about 01 May 2008 in anticipation of VTIP becoming responsible for the payment of VTIP's US maintenance fees VTIP prepared for implementation by taking the following steps:

- Mark Coburn implemented the appropriate commands to the Inteum C/S system to add maintenance fee docketing information to the Inteum C/S report.
- Mark Coburn instructed outside counsel (Whitham, Curtis, Christofferson & Cook P.C.) to confirm that they had paid maintenance fees for all VTIP patents for which they had instructions to pay.

#### 01 May 2008 Implementation of Payment of VTIP Maintenance Fees

When, on about 01 May 2008 VTIP first became responsible for the payment of VTIP's maintenance fees the following steps were implemented to ensure prompt payment:

- VTIP generated an Inteum C/S database monthly report (an example is attached as Exhibit A) which was used to pay the outstanding maintenance fees coming due or in the case of a sponsor or licensee which has been granted the responsibility for paying the fee, verification that the fee has been paid.
- An entry is made in the Inteum C/S database as to fees to be paid or if a decision was to not pay the fee, such decision is also recorded in the database. Payment of the fee is made using the USPTO online payment site using a VTIP corporate American Express card.
- The Inteum C/S database is routinely (at least monthly) reviewed by Mark Coburn to determine if any issue fee payment is beyond the due date (and into the grace period for payment with a surcharge).
- Repetitive review was implemented to ensure maintenance fee payments by the due date or within the surcharge period at the latest.

4. Discovery of the Missed Maintenance Fee Payment and Prompt Action Taken.

On about 15 November 2011 Mark Coburn became aware that the second maintenance fee for the above noted '514 patent had not been paid. This was brought to his attention as he was preparing for payment of the third maintenance fee (due at 11 and ½ years, i.e., on 05 March 2012). In reviewing the payment information it was observed that the U.S. Patent and Trademark Office had listed the status of this patent as expired for non-payment of maintenance fees.

Mark Coburn immediately began a detailed review of this matter and on about 28 November 2011 he contacted Richard Lazarus at Barnes & Thornburg and requested assistance. On 29 November 2011 Mark Coburn traveled to the Washington, D.C. offices of Barnes & Thornburg LLP and met with Richard Lazarus to discuss the events relating to the failure to pay the second maintenance fee.

After the 29 November 2011 discussion, Richard Lazarus began an initial investigation of the facts surrounding the failure to pay the second maintenance fee for the '514 patent. The investigation included discussions with Mark Coburn and Debra Lucas and repeated investigation to uncover all evidence relating to the failure to pay the first maintenance fee for the '514 patent.

Promptly upon completion of the investigations drafting of this petition and accompanying declarations was begun.

The Error in Failure to pay the Second Maintenance Fee.

The transition from payment of maintenance fees by outside counsel to payment by VTIP included generation of an Inteum C/S report of fees to be paid. A copy of the report is included as Exhibit A submitted with this Petition. Exhibit A shows a listing of the Patents being tracked in the "Patent No." column and the present patent (No. 6,112,514) is shown on the 21st line. All "Patent" numbers and "Serial" numbers except for the '514 patent have been redacted to maintain confidentiality of those redacted patents and applications. In the "Sub Type" column for the '514 patent there is an entry of "7.5 large entity" meaning the next fee due is the second or 7 and ½ year due maintenance fee (and the client is a large entity). In the "Task" column for the '514 patent there is an entry of "Paid 8/9/06." The Inteum C/S system has a report screen for each patent wherein additional information for that patent and client may be found. A copy of the report screen for the '514 patent is included as Exhibit C to this Petition.

Exhibit C also shows the "7.5 large entity" information and on the same line shows "Paid 8/9/06." As explained in the accompanying Declaration of Mark Coburn this indicates that the 7 and ½ year maintenance fee was paid on 8/9/06. The entry of "Paid 8/9/06" should not have been made. As stated in his declaration Mark believes Debra Lucas made the erroneous "Paid 8/9/06" entry which resulted in failure to pay the second (7 and ½ year) maintenance fee. Exhibit B accompanying this petition is a copy of the 09 August 2006 letter from Michael Whitham to Mark Coburn stating that the annuity service has been authorized "to pay the 2006 annuity for the above-identified European Patent application." The Whitham letter identifies the European Patent Application number (No. 99964945.2) and the VTIP reference number "97.058." In the upper right-hand corner of the letter there is a hand written note wherein the VTIP reference number "97.058" is written and "C/S updated" is also written. Debra Lucas in her declaration (accompanying this petition) acknowledges that this is her hand writing and that she made this note on the 09 August 2006 letter. Debra Lucas states in her declaration that in accordance with this note she updated the Inteum C/S record system. In her declaration Debra Lucas acknowledges she believes that because of this letter she entered the "Paid 8/9/06" entry into the Inteum C/S record system. Debra Lucas' Declaration

acknowledges that the "Paid 8/9/06" entry into the Inteum C/S record system is incorrect in that it reflects payment of the US maintenance fee, not the European maintenance fee. In her declaration Debra Lucas explains she believes she made this improper entry, but she has no recollection of why she incorrectly entered this information.

It is concluded that the "Paid 8/9/06" incorrect entry resulted in a failure to instruct outside counsel (Whitham, Curtis, Christofferson & Cook P.C.) to pay the U.S. second maintenance fee and failure to docket the 7 and ½ year maintenance fee for payment on the Inteum C/S report. If the incorrect entry had not been made then VTIP would have instructed outside counsel to pay the second maintenance fee and/or the Inteum C/S report would have listed VTIP as responsible for payment of the 7 and ½ year maintenance fee and the second maintenance fee would have been paid. As stated in the Declaration of Mark Coburn he provided no instructions to Whitham, Curtis, Christofferson & Cook P.C. to pay the second maintenance fee for the '514 patent (e.g., see paragraph 13 of Mark's Declaration) because of the erroneous "Paid 8/9/06" entry. A Declaration of Michael Whitham at Whitham, Curtis, Christofferson & Cook P.C. accompanies this petition and explains that a search of the files of Whitham, Curtis, Christofferson & Cook P.C. confirms that their files contain no evidence of receipt of instructions to pay the second maintenance fee for the '514 patent.

5. Reasonable Care Taken to Make Timely Payment of the Second Maintenance Fee

As has been recognized both by federal courts and by the USPTO in the Manual of Patent Examining Procedure (MPEP) at section 711.03(c), subsection 11, subparagraph (C)(2); and section 2590, the implementation of a routine and reliable docketing system to track a responsible party's upcoming maintenance fee obligations is an important factor in considering the totality of circumstances regarding "unavoidable delay." See also e.g., In re Katrapat, 6 USPQ2d 1863 (Comm'r Pat. 1988); Ex Parte Henrich, 1913 Dec. Comm'r Pat 139 (Comm'r Pat 1913) (delay unavoidable due to elaborate docketing system with reasonable checks against breakdown); California, Supra ((mis)calculation by reliable clerk does not have to be double-checked every time record consulted). Furthermore, VTIP is entitled to rely upon the agency of its own well trained, totally reliable and trustworthy employees, and the instrumentality of Inteum C/S, a recognized leader in patent maintenance. Here, all



involved parties intended to preserve the '514 patent rights. It suffices to prove, as here, that the delay was unavoidable if it arose unforeseeably despite the actions of a prudent and careful person with respect to his most important business. Mattullath, Supra at 514-515.

The USPTO has acknowledged in MPEP §711.03(c)(11), subparagraph (C)(2), that a delay resulting from an error (e.g., a docketing error) on the part of an employee in the performance of a clerical function may provide the basis for a showing of "unavoidable" delay. This is contingent upon it being shown that:

- (i.) the error was the cause of the delay at issue;
- (ii.) there was in place a business routine for performing the clerical function that could reasonably be relied upon to avoid errors in its performance; and
- (iii.) the employee was sufficiently trained and experienced with regard to the function and routine for its performance that reliance upon such employee represented the exercise of due care.

That showing of unavoidable delay is met by the detailed showing below.

(i) The error was the cause of the delay at issue

As stated in the declaration of Mark Coburn, Mark began employment at VTIP in March of 2006 and since that time has been responsible for managing VTIP patent processing. As stated in Mark's declaration he has reviewed the "Paid 8/9/06" indication for the '514 patent on the tracking report, he believes Debra Lucas made the "Paid 8/9/06" entry, the "Paid 8/9/06" entry is in error and this entry error resulted in the failure to pay the second maintenance fee which went unnoticed until 15 November 2011.

Mark Coburn has searched his thoughts and VTIP records for evidence of the cause of this error and concludes that the error resulted from Debra Lucas' erroneous entry of "Paid 8/9/06" on the tracking report. It was this erroneous entry that led Mark to the conclusion that the second maintenance fee had been paid. Debra Lucas Declaration accompanies this petition and states that based on her review of the 09 August 2006 letter from Michael Whitham to Mark Coburn (Exhibit B accompanying this Petition) she erroneously entered the "Paid 8/9/06" entry on the VTIP Inteum C/S tracking report of the '514 patent (copy attached as Exhibit A) and she erroneously entered the "Paid 8/9/06" entry on the Inteum C/S IP Assets screen shot for Tech ID 97.058 (Exhibit C accompanying this petition). The "Paid 8/9/06" entry is erroneous since the entry is on the tracking report and

screen shot for the corresponding US Patent (number 6,112,514) and should have been made instead for the corresponding European Patent Application (No. 99964945.2). Debra Lucas' Declaration acknowledges that she should not have made this entry for the US '514 patent and that she has no recollection of why she made this entry.

All of the facts uncovered demonstrate that it was the incorrect entry of "Paid 8/9/06" on the tracking report that caused missed payment of the second maintenance fee. The incorrect entry led subsequent review to conclude that the second maintenance fee was paid. Accordingly, the tracking was set to reflect that payment was due for the third maintenance fee due at the 11 and ½ year date.

Mark Coburn states in his declaration that he has searched VTIP records for any reminder letters (of payment coming due or of expiration for failure pay a maintenance fee) from the USPTO for the '514 patent and none have been found. Mark requested others to review their records for receipt of any notice of payment coming due or of expiration for failure to pay a maintenance fee for the '514 patent. As attested to by Michael Whitham of Whitham, Curtis, Christofferson & Cook P.C. they have not received any such notices from the USPTO regarding the '514 patent.

Whitham, Curtis, Christofferson & Cook P.C. took no further action to pay the second maintenance fee and because they had not received instructions to pay and they had received instructions to close their '514 file as of about 01 May 2008.

- (ii) There was in place a business routine for performing the clerical function that could reasonably be relied upon to avoid errors in its performance

As discussed above, the Inteum C/S tracking system and Mark Coburn were in place for a long time prior to the 01 May 2008 transition of responsibility for US patent maintenance fee payments from the Whitham firm to VTIP. As explained above measures were put in place before the transition to ensure a faultless transformation to VTIP's US patent maintenance fee tracking and procedures were implemented on about 01 May 2011 to ensure repeated review so as to guarantee timely and proper US patent maintenance fee payments.

- (iii) the employee was sufficiently trained and experienced with regard to the function and routine for its performance that reliance upon such employee represented the exercise of due care

Mark Coburn's extensive experience with patent processing generally and tracking patent due dates via Inteum C/S is discussed above and in his declaration. Mark Coburn's declaration also attests to the extensive experience and training of Debra Lucas with patent processing generally and tracking patent due dates via the VTIP Inteum C/S system. The details provided demonstrate that he and Debra Lucas are experienced with regard to the function of monitoring of patent due dates such that reliance upon him, Debra Lucas and the VTIP Inteum C/S system for payment of VTIP's US patent maintenance fees represented the exercise of due care.

5. Steps Taken to Promptly File This Petition

As explained above, discovery of the failure to pay the '514 first maintenance fee on about 15 November 2011 resulted in prompt retention of undersigned counsel, investigation of all relevant facts, drafting and execution of the accompanying declarations, gathering of relevant evidence of the facts (included as Exhibits hereto) and then preparation and filing of this petition to resolve this matter as quickly as possible. It should be clear that the investigation and preparation of the declarations and this petition involved many persons and documents including the Declarants and Exhibits accompanying this petition. The investigation to uncover all relevant information extended to VTIP, the Whitham firm, and USPTO online records. Preparation of the petition and other documents required legal research and rehashing of the background facts and information so as to enable continuous progress culminating in this petition.

Conclusion

The record shows that there were steps in place by VTIP to pay the maintenance fees for the '514 Patent. These steps included utilization of a reliable tracking system such as would be used by a prudent and careful person with respect to his most important business. Moreover, that system was administered by a highly competent person who was familiar with the maintenance fee tracking system, and who faultlessly tracked and timely paid many other

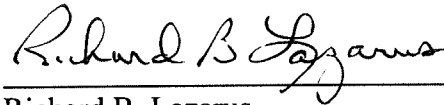
maintenance fees. The UPSTO has long recognized that under the unavoidable delay standard, VTIP was and is entitled to rely upon the agency and instrumentality of such a worthy employee, and if, as here, he unforeseeably and unexpectedly erred in the performance of his duties, such *error* is reasonably considered to be unavoidable within the meaning of 35 U.S.C. §41(c) and 37 CFR §1.378(b).

The delay in payment of the second maintenance fee for the '514 Patent was unavoidable, and a proper showing under 37 C.F.R. §1.378(b) has been made. Accordingly, a proper showing has been made that relief should be granted, that the payment tendered for the second maintenance fees should be accepted in the '514 Patent, and that such patent should be held in force. Therefore, it is respectfully requested that the unavoidable delay of the payment of the maintenance fee for the '514 Patent be accepted and that this patent be reinstated.

The Commissioner is hereby authorized to charge any maintenance fees, surcharges, or any required additional fees, or credit any overpayment, to Deposit Account No. 02-1010, referencing Docket No. 55820-49375.

Any remaining questions may be directed to the undersigned.

Respectfully submitted,



Richard B. Lazarus  
Reg. No. 48,215

Attachments: Declaration of Mark Coburn

Declaration of Michael E. Whitham

Declaration of Debra Lucas

Inteum C/S tracking report (copy attached as Exhibit A)

09 August 2006 letter from Michael Whitham to Mark Coburn (copy attached as Exhibit B)

Inteum C/S IP Assets screen shot (copy attached as Exhibit C)

# Exhibit A

VTIP Inteum C/S tracking report for the '514 patent

(portions relating to matters other than the '514 patent redacted  
for confidentiality purposes)

Owner	Sub Type	Tech ID	Due Date	Complete...	Patent No	Serial No	Task
Mark C...	11.5 large entity	93.008	10/29/2008	09/24/2008			Sharp Responsible. Paid 9/24/08.
Mark C...	3.5 large entity	99.044	10/26/2008	09/24/2008			Samsung Responsible. Paid 9/24/08.
Mark C...	3.5 large entity	99.019	10/05/2008	09/26/2008			Ballard Responsible. Paid 9/26/08.
Mark C...	3.5 small entity	03.015	08/22/2008	08/22/2008			VTIP/Invoice IPPF. Paid 8/22/08.
Mark C...	3.5 small entity	01.061	08/15/2008	07/01/2008			ConocoPhillips Responsible. Paid 7/1/08.
Mark C...	11.5 large entity	92.034	08/12/2008	08/11/2008			Genencor Responsible. Paid 8/11/08.
Mark C...	11.5 large entity	92.034	08/12/2008	08/11/2008			Genencor Responsible. Paid 8/11/08.
Mark C...	11.5 large entity	92.034	08/05/2008	08/04/2008			Genencor Responsible. Paid 8/4/08.
Mark C...	3.5 small entity	00.141	07/11/2008	07/15/2008			VTIP/No Licensee. Paid 7/15/08.
Mark C...	11.5 small enti...	91.019	07/01/2008	12/24/2008			ProGenetics Responsible. Paid 12/24/08.
Mark C...	11.5 small enti...	92.054	06/24/2008	06/18/2008			VTIP/Invoice MCT. Paid 6/18/08.
Mark C...	11.5 large entity	92.034	05/27/2008	05/16/2008			Genencor Responsible. Paid 5/16/08.
Mark C...	7.5 small entity	97.066	05/21/2008	08/18/2008			VetTech Responsible. Paid 8/18/08.
Mark C...	3.5 small entity	02.097	05/16/2008	05/16/2008			VTIP/Invoice IPPF. Paid 5/16/08.
Mark C...	11.5 large entity	95.026	05/12/2008	05/02/2008			Garst Responsible. Paid 5/2/08.
Mark C...	3.5 small entity	97.066	05/02/2008	07/14/2008			VetTech Responsible. Paid 7/14/08
Mark C...	7.5 small entity	98.063	04/24/2008	05/16/2008			VTIP/Invoice NanoMedics. Paid 5/16/2008. ...
Mark C...	3.5 small entity	00.146	04/12/2008	08/26/2008			VTIP/No Licensee. Paid 8/26/08.
Mark C...	3.5 small entity	01.040	04/05/2008	10/03/2008			Face Responsible. Paid 10/3/08.
Mark C...	7.5 small entity	95.065	03/06/2008	05/27/2008			VTIP/Invoice Nanosonic. Paid 5/27/08.
Mark C...	7.5 large entity	97.058	03/06/2008	08/09/2006	6,112,514	09/159,634	VTIP/Invoice Rohr. Paid 8/9/06.
Mark C...	3.5 small entity	98.063	12/15/2007	05/16/2008			Paid by VTIP. \$65 late fee paid by VTIP. G...
Mark C...	3.5 small entity	02.122	11/30/2007	03/01/2010			VTIP/Invoice IPPF. Petition Accepted 3/1/10.
Mark C...	7.5 large entity	97.020	11/29/2007	05/16/2008			Paid by VTIP. \$130 late fee paid by VTIP. ...
Mark C...	3.5 large entity	01.058	11/18/2007	05/09/2008			VTIP/Invoice SRC. Paid 5/9/2008.

## Exhibit B

09 August 2006 letter from Michael Whitham to Mark Coburn



WHITHAM, CURTIS & CHRISTOFFERSON, P.C.  
INTELLECTUAL PROPERTY LAW

*Providing Global Intellectual Property Strategies & Solutions*

*Michael E. Whitham  
Marshall M. Curtis  
Clyde R. Christofferson  
Robert N. Cook  
C. Lamont Whitham\*  
Mary E. Goulet\*  
Philana S. Handler  
\* of counsel*

*Registered Patent Agents:  
Ruth E. Tyler-Cross, Ph.D.  
Olga V. Merkulova  
Daniel A. Steinberg*

VIA E-MAIL

August 9, 2006

Mr. Mark Coburn  
Executive Director  
Virginia Tech Intellectual Properties, Inc.  
2200 Kraft Drive  
Suite 1050  
Blacksburg, Virginia 24060

Re: European Patent Application No.: 99964945.2  
VTIP Ref.: 97.058  
Our Ref.: 01640056TB  
FAN NOISE REDUCTION FROM TURBOFAN ENGINES...

Dear Mr. Coburn:

In accordance with Debbi Lucas' facsimile of August 8, 2006, we have authorized our annuity service to pay the 2006 annuity fee for the above-identified European patent application. Our statement of costs and expenses with regard to this matters will follow at the end of the month.

Thank you for allowing us to be of service. If you have any questions regarding this matter, please do not hesitate to contact us.

Very truly yours,

Michael E. Whitham

MEW/sme



# Exhibit C

Inteum C/S IP Assets screen shot for Tech ID 97.058

Tech ID: 97058  
 Internal ID:  
 Title: Fan Noise Reduction From Turbulent Engines Using Adaptive Hirschel Quake Tubes

App Type: Utility  
 Country: United States  
 Serial No: 09/199634  
 Patent No: 6,112,514  
 Law Firm: Whitham CCC (2)  
 Attorney: Andrew M. Calderon  
 Legal Ref: 164056AA  
 Examiner:

Status: Issued  
 Entity: No  
 Priority: 9/24/1998  
 File Date: 9/5/2000  
 Issued/Granted Date: 9/24/2018  
 Last Inventor Assign: ☐ Client Assign  
 Publication Date: ☐ Pub No.  
 User Del: ☐

Mkt Projects				Owners / Assignees			
Patent Derived		Comments		Documents		IP Asset Documents	
Type	Owner	Priority	Due Date	Sub Type	Completed	Tech Id	Task
A	Karen Masby	Normal	01/06/2004	3.5 large entity	01/28/2004	97058	advised Whitham to pay invoice R0HR Goodrich should be large entt
A	Mark Coburn	High	03/06/2008	7.5 large entity	08/09/2005	97058	VTIP Invoice Rebr Paid 8/9/06
A	Mark Coburn	High	03/06/2012	11.5 large entity		97058	VTIP Invoice Rebr

Hours / Events			
Hours	Events	Related Techs	M